

- c: holding said membrane at the elevated temperature for a predetermined interval, wherein the predetermined interval has been selected to permit the desired percentage conversion of amorphous to crystalline state; and
- d: returning the membrane to ambient temperature.

Claim 16 (twice amended) The method of claim 12 wherein the percentage conversion of crystalline state is determined using X-ray spectroscopy.

Claim 25 (amended) A method of operating a polymer electrolyte membrane fuel cell at elevated temperatures equipped with a membrane conditioned by claim 12 comprising supplying an oxygen containing gas at the cathode and supplying at the anode a fuel selected from the group consisting of hydrogen, reformat, methanol and ethanol.

Cancel claims 14 and 24.

Please add the following claim:

--27. A perfluorosulfonic acid fuel cell membrane prepared by heating the same whereby the diffusion coefficient of methanol through the membrane is not greater than $1.33 \times 10^{-8} \text{ cm}^2 \text{ s}^{-1}$.—

REMARKS

Reconsideration of this application is requested in view of the amendments to the claims and the remarks presented herein.